

**PATENT APPLICATION**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Alain BETHUNE

Group Art Unit: 1734

Application No.: 09/688,961

Examiner: S. PURVIS

Filed: October 17, 2000

Docket No.: 107615

For: METHOD OF HOT MARKING, AND A MULTILAYER STRUCTURE FOR  
IMPLEMENTING SUCH A METHOD

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Applicant hereby requests review of the rejections set forth in the January 27, 2006 Office Action. A Notice of Appeal and fee in the amount of \$500 are filed concurrently herewith.

**I. Status of Pending Claims**

Claims 1, 3-16, 18-22, 24-26 and 28-61 are pending in this application. Claims 14-16, 18-20 and 48-55 are withdrawn from consideration. Claims 11, 36, 44, 45, 58 and 59 include allowable subject matter. Claims 1, 3-10, 12, 13, 21, 22, 24-26, 28-35, 37-43, 46, 47, 56, 57, 60 and 61 are rejected. No amendments are being filed with this request.

**II. Grounds of Rejection Presented For Review**

The following grounds of rejection are presented for review: (A) claims 1, 4-10, 12, 13, 21, 24-26, 29-35, 37-39, 41, 46, 47, 56, 57, 60 and 61 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over JP 01-202492 ("JP '492") in view of U.S. Patent No.

4,294,641 ("Reed"); (B) claims 3 and 28 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over JP '492 in view of Reed, and in further view of U.S. Patent No. 5,581,978 ("Hekal"); (C) claims 22 and 40 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over JP '492 in view of Reed, and in further view of U.S. Patent No. 4,133,723 ("Howard"); and (D) claims 42 and 43 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over JP '492 in view of Reed, and in further view of U.S. Patent No. 5,391,247 ("Kamen") and U.S. Patent No. 1,124,869 ("Davis").

Claims 1, 26, 46 and 47 are the rejected independent claims.

**A. JP '492 in view of Reed**

The Patent Office alleges that JP '492 teaches a method of decorating a substrate comprising the steps of supplying a multilayer structure comprising a release sheet, a layer of radiation curable protective resin, a decorative layer, and a layer of heat activated adhesive; exposing the protective resin layer to radiation to render it partially cured, contacting the multilayer structure with the surface of a target substrate; applying pressure and heat with a heated roller thereby activating the heat activated adhesive layer to bond the decorative and protective resin layer to the target substrate, withdrawing the release sheet, and exposing the transferred layers to further radiation causing the protective resin layer to fully cure. The Patent Office admits that JP '492 does not teach or suggest a UV thermal varnish which is also cured with heat prior to transfer. Instead, JP '492 teaches a varnish layer being partially cured by radiation prior to transfer.

The Patent Office introduces Reed as allegedly teaching a transfer layer comprised of a UV or thermally curable hydroxylated urethane acrylate such as acrylated polyurethane. The Patent Office thus alleges that it would have been obvious to one of ordinary skill in the art to have substituted the UV varnish taught by JP '492 with a UV thermal varnish such as

the one allegedly used in Reed. Applicant strongly disagrees with the Patent Office's allegation.

Neither JP '492 nor Reed, in combination or alone, teaches or suggests pre-curing the varnish, which is initiated by exposure to heat prior to transfer as recited in claims 1 and 26. As explained above, JP '492 teaches that the protective layer may be partially cured by irradiation, not by exposure to heat, while Reed teaches that the resin layer is transferred in liquid phase (see column 3, lines 46-53 of Reed). Applicant submits that neither JP '492 nor Reed, alone or in combination, teaches pre-curing the varnish is initiated by exposure to heat prior to transfer as recited in claims 1 and 26.

Furthermore, JP '492 in combination with Reed does not teach or suggest a UV thermal varnish as recited in claims 1 and 26. Examiner Lorengo has asserted that Reed is introduced to show that the protective layer of JP '492 can be cured by thermal treatment. However, this is not correct. JP '492 teaches a protective layer that is cured by irradiation, e.g., the protective layer is UV curable. Furthermore, Reed does not teach or suggest heating the protective layer at all prior to the transfer as recited in claims 1 and 26. Instead, Reed teaches that the resin layer is transferred in liquid phase.

Thus, one of ordinary skill in the art would not have looked to Reed's teachings of a liquid phase transfer to thermally cure the protective layer of JP '492.

For the foregoing reasons, Applicant submits that JP '492 and Reed, in combination or alone, do not teach or suggest all of the features recited in claims 1, 4-10, 12, 13, 21, 24-26, 29-35, 37-39, 41, 46, 47, 56, 57, 60 and 61. Reconsideration and withdrawal of the rejection are thus respectfully requested.

**B. JP '492 in view of Reed, in further view of Hekal**

Hekal was introduced by the Patent Office as allegedly teaching that the UV thermal varnish is a cationic UV thermal varnish as recited in claims 3 and 28. However, Applicant

submits that Hekal does not overcome the deficiencies of JP '492 and Reed. In particular, Hekal does not teach or suggest that the varnish is partially cured by exposure to heat prior to transfer as recited in claims 1 and 26.

Accordingly, Applicant submits that claims 3 and 28 are patentable over JP '492, Reed and/or Hekal. Reconsideration and withdrawal of the rejection are thus respectfully requested.

**C. JP '492 in view of Reed, further in view of Howard**

Howard was introduced as allegedly teaching that the oligomers of the UV thermal varnish have a molecular weight in the range of from about 800 to about 2000 as recited in claims 22 and 40. However, Applicant submits that Howard does not overcome the deficiencies of JP '492 and Reed. In particular, Howard does not teach or suggest that the varnish is partially cured by exposure to heat prior to transfer as recited in claims 1 and 26.

Accordingly, Applicant submits that claims 22 and 40 are patentable over JP '492, Reed and/or Howard. Reconsideration and withdrawal of the rejection are thus respectfully requested.

**D. JP '492 in view of Reed, further in view of Kamen and Davis**

Kamen and Davis were introduced as allegedly teaching a gilding iron used to apply pressure and heat as recited in claims 42 and 43. However, Applicant submits that Kamen and Davis, in combination or alone, do not overcome the deficiencies of JP '492 and Reed. In particular, Kamen and Davis do not teach or suggest that the varnish is partially cured by exposure to heat prior to transfer as recited in claims 1 and 26.

Accordingly, Applicant submits that claims 42 and 43 are patentable over JP '492, Reed, Kamen and/or Davis. Reconsideration and withdrawal of the rejection are thus respectfully requested.

**III. Conclusion**

For all of the reasons discussed above, it is respectfully submitted that the rejection is in error and that all the pending claims are in condition for allowance. For all of the above reasons, Applicant respectfully requests the panel of Examiners to review the January 27, 2006 Office Action prior to Appeal and to withdraw the rejections therein.

Respectfully submitted,

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JAO:LL/hs

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